

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:32 PM

**Daily Diary Report by Bid Item**

Contract No.: 04-0120F4

Diary #: 485 Const Calendar Day: 868 Date: 24-Jan-2012 Tuesday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Intermittent

Shift Hours: 07:00 am 05:30 pm Break: 00:30 Over Time: 02:00

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4  
04-SF-80-13.2/13.9  
Self-Anchored  
Suspension Bridge****Weather****Temperature** 7 AM 40 - 50 12 PM 50 - 60 4PM 50 - 60**Precipitation** 0.00"**Condition** Overcast in the AM to partly overcast in the PMWorking Day ☐ If no, explain:**Diary:**

Dispute

**Work description.**

- The tasks completed today by the Alta Vista surveyors included the following:
  - 1.) Chris, Erol, and Dave shot the 24 points on the W-Line YBITS bridge with the total station and the automatic level.
  - 2.) The surveying consultants worked on processing the raw data from today.

- The following is the hours worked by the Alta Vista consultants today:

Dave Garrett (survey party chief) = 8hrs

Chris Ferrucci (instrumentman) = 8hrs

Erol Schaller (rodman) = 8hrs

- Used the Topcon GPS equipment to measure at 180 epochs the 24 points on the YBITS W-Line bridge for the deflection monitoring of the Hinge K tie-down operation. Only 4 out of 82 tendons (95% complete) had to be post-tensioned and the tendons were close to the edge of deck (EOD) located on the top corner of the wing. Therefore the measurements taken shouldn't be effected by the remaining portion of the post-tensioning operation. Surveying with the GPS equipment began at 11:00am and ended at 12:40pm with a K-value of 4 (Max 24hr value = 4) during the survey. The GPS was still used even with the unsettled geomagnetic field to see what type of effects on the equipment may occur. This will be considered for the final report on the values compared with the total station. To reiterate ABF set 3 brass disks at the end of the cantilever and myself/Alta Vista surveyors placed 21 points at the centerline, and 11.000m R/L offsets from the centerline. The PK nails on the YBITS W-Line bridge didn't appear to be damaged however the brass caps appeared to have some minor scratches and nicks on the top face.

- At the request of ABF engineer Zach Lauria myself and Alex Schmitt checked the out to out distance between cable strands no.1, 3, and 4 on both the north/south main and sidespans. The out to out distance was checked between cable strands no. 1 to 4, 5, and 6 at the west loop in both the north and south sections. The oversized calipers were used at all locations since the Maletic modified calipers couldn't be used due to the low catwalks. Alex and myself both took turns measuring the heights with the oversized calipers. As before the infrared temperature gun probe was wedged in between the cable strand wires to obtain the steel temperature. The following are the measurements taken at the given times for acceptance or rejection of the adjusted cable strand:

// South Sidespan //

Time = 7:20am

Ambient Temperature = 48F

Condition = Partly cloudy skies

Wind = Calm



## Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

Diary #: 485

Date: 24-Jan-2012 Tuesday

ABF Engineer(s) = Andre Markarian  
Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theoretical(mm)*	Steel Temperature (F)
1	Baseline or Zero	0	48
3	200 (CT), 206 (ABF)	202	48
4	337 (CT), 340 (ABF)	336	48

// North Sidespan //

Time = 7:42am

Ambient Temperature = 48F

Condition = Partly cloudy skies

Wind = Calm

ABF Engineer(s) = Zach Lauria

Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theoretical(mm)*	Steel Temperature (F)
1	Baseline or Zero	0	47
3	206 (CT), 199 (ABF)	195	47
4	377 (CT), 381 (ABF)	327	48

// South Mainspan //

Time = 8:22am

Ambient Temperature = 50F

Condition = Overcast

Wind = Calm

ABF Engineer(s) = Andre Markarian

Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theoretical(mm)*	Steel Temperature (F)
1	Baseline or Zero	0	51
3	195 (CT), 196 (ABF)	175	49
4	311 (CT), 306 (ABF)	300	50

// North Mainspan //

Time = 8:51am

Ambient Temperature = 52F

Condition = Overcast

Wind = Calm

ABF Engineer(s) = Not present

Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theoretical(mm)*	Steel Temperature (F)
1	Baseline or Zero	0	51
3	208, 206 (CT)	170	50
4	329, 326 (CT)	292	50

// North West Loop //

Time = 9:34am

Ambient Temperature = 51F

Condition = Partly overcast, west end of W2 cap beam in the shade

Wind = Calm

ABF Engineer(s) = Not present

Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theor/Delta (mm)	Steel Temperature (F)
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## Daily Diary Report by Bid Item

Job Name: 04-0120F4 Inspector Name Bruce, Matt Diary #: 485 Date: 24-Jan-2012 Tuesday

1	Baseline or Zero	0	49
4	423 (Matt CT), 418 (Alex CT)	457	48
5	192 (Matt CT)	174	49
6	300 (Matt CT), 299 (Alex CT)	269	49

Note: The adjuster grips were connected to cable strand no.7 and didn't appear to effect the sag of adjacent cable strands, see photo attached below.

// South West Loop //

Time = 10:00am

Ambient Temperature = 50F

Condition = Partly overcast, west end of W2 cap beam in the shade

Wind = Calm

ABF Engineer(s) = Not present

Caltrans Engineer (s) = Matt Bruce and Alex Schmitt

Cable Strand	Out-to-Out Measurement (mm)	Theor/Delta (mm)	Steel Temperature (F)
1	Baseline or Zero	0	51
4	428, 427	457	51
5	192, 193	174	50
6	302, 303	269	50

Note: The adjuster grips were connected to cable strand no.7 and didn't appear to effect the sag of adjacent cable strands, see photo attached below.

See Alex Schmitt's diary on the discussions with ABF engineer Zach Lauria and the decision for acceptance. Also the \* denoted next to the theoretical values means that the values presented don't include the +10mm adjustment to set all strands from cable strand no 1.

- See Victor Altamirano, Lorraine Woo, and Abbas Iranmanesh's diaries for additional details on the operations, labor, and equipment at the west loop saddles.
- See John Lyons and Saman Soheilifards diaries primarily for the adjustment operations, labor, and equipment of cable strands at the tower today. Saman conveyed the activities performed by the ABF engineers and ironworkers to Alex Schmitt.
- Called three suppliers to get a quote on a Trimble S8 total station and TSC3 data collector. The suppliers included Trimble, California Surveying and Drafting Supply, and Allen Instruments.
- Reviewed the numbers for the first strand survey in Submittal 2596R00 with Warren Collins. The comments that I had relating to the submittal include ABF providing a stamp on the submittal by a PE or PLS. Also I informed Warren that the numbers between Caltrans and ABF were acceptable for the west loop, sidespan, and mainspan given the dynamics of surveying/measuring cable strand.

Attachment

## Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

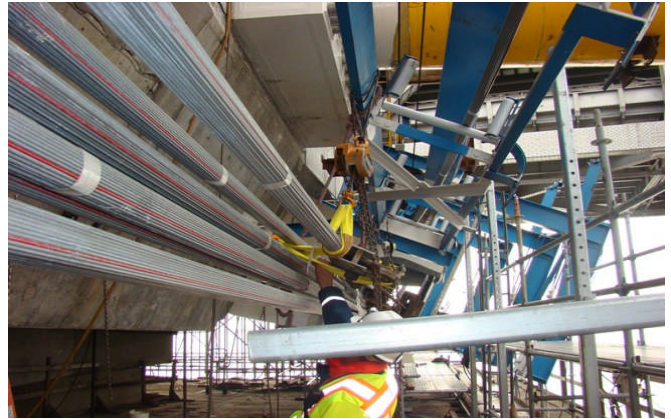
Diary #: 485

Date: 24-Jan-2012

Tuesday



The weather condition conditions while measuring cable strands no. 3 and 4 at the south sidespan this morning.



Cable strand adjusters placed on cable strand no.7 ready for adjustment at the south section of the west loop.



ABF engineer Andre Markarian measuring the out to out distance between cable strand no. 1 and cable strand no.4 with Alex pulling back a strand.



The current cable strand configuration at the south sidespan this morning.